

IRTS Radio News Bulletin Sunday September 5th 2021

SDR Live Stream

On Tuesday, the 7th of September 2021, from 2000 local time, the South Dublin Radio Club EI2SDR will host a Live Stream and Virtual Open Night. There will be two complimentary elements to this event.

A live stream via the club's You Tube channel of a HF radio net on the 80 metre band on 3.650 MHz +/- for QRM. Here, South Dublin Radio Club will demonstrate the operation of an amateur radio station and radio net utilising a Software Defined Radio spectrum display, showcase the types of equipment used in an HF station, and answer any amateur radio related questions visitors may have via the live stream or in the live chat.

And also, the weekly Tuesday night club will run simultaneously via Zoom. Here you can meet club members, ask in-person questions about the live stream and amateur radio in general!

This event may be of particular interest to those wishing to learn more about amateur radio or for those about to undertake the upcoming HAREC examination.

One can find the Live stream on the "South Dublin Radio Club" YouTube channel. SDR will publish the link via Twitter, Facebook and on their website closer to the time.

To join with club members via Zoom please send us a direct message to request an access code via our Facebook, Twitter or website www.southdublinradioclub.ie

On the HF Bands

On 16th anniversary of Hurricane Katrina a new contender headed inland near Grand Isle, Louisiana. With winds over 148 mph at landfall, Ida devastated areas of Louisiana and Mississippi before moving north and east, dumping torrential rains as it went. This Category 4 hurricane left several people dead and millions of utility customers without power. Bobby Graves, KB5HAV, net manager of Hurricane Watch Net reported their net active for 26 hours with 47 reporting stations. More than 120 reports were sent to the National Hurricane Center through WX4NHC. The net

provided the hurricane center with additional details as hams checked in with traffic from weather stations, social media outlets, public safety outlets and contacts in the affected areas. Amateur radio and government also worked hand-in-hand as FEMA declared Channels 1 and 2 on 60 meters available for interoperability as late as September 6th if needed. As before, the FCC authorized a higher symbol rate than the 300-baud limit for hams' hurricane-related transmissions.

The Bonaire Amateur Radio Club PJ4BAR celebrated its recent birth by hosting a field day on Sorobon Beach from August 27th through to the 29th. For now, the fledgling club's membership boasts all nine active radio amateurs who call Bonaire their home fulltime, with additional membership among those amateurs who have addresses on the island but live elsewhere much of the time. Still, the club does enjoy fellowship on and off the air and its weekly meetings often last until late into the night. So if you should hear the club callsign on the air, be sure to work the station. And don't forget to send those QSL cards to M0URX.

Jean-Philippe, F1TMY will be active as 3X2021 from Conakry, Guinea, starting mid-September on 160 to 6m and on the QO100 satellite. There will be portable activities from the Los Islands (AF-051). QSL via ClubLog.

The SP Straight Key Contest is held Friday next from 1700 to 1859 UTC. Exchange is RST and the age of the operator, with a QRP and an open section. More information about this unique 3 hour event from their contest manager SP7SZK

In the world of DX, Michael, DF8AN, will be active as 9A/DF8AN from Croatia until the 12th of September and he intends to activate a number of lighthouses. Listen for him on CW and the Digital modes. He will finish his activation in Croatia and move next to the Canary Islands in October. Send QSLs via DF8AN, direct or by the Bureau.

A special event station in Spain is marking International Chocolate Day with the callsign EG5DIC. The station will be on the air from the 10th to the 19th of September, marking the special day itself which is on the 13th. Listen on 10 to 80m bands where they will be using CW, SSB and FT8. A downloadable diploma in PDF format will be available. QSL via the Bureau.

Weinheim VHF Days

The 66th Weinheim VHF Conference will be held online via zoom, next weekend from Friday morning until Sunday evening. There is no registration required. One can follow the lectures and participate in breakout rooms afterwards, or view the the lectures on YouTube, although without interaction. The published agenda lists projects

like a Raspberry Pi GPS based time server, a flow sensor for a precision frequency generator, and an open-source Lo-Ra-WAN ChipStack. Keep an eye on the Weinheim webpage for zoom access infos on www.ukw-tagung.org

Another Carrington Event Likely

Ralph Squillace KK6ITB reports for Amateur Radio Newslines that Professor Sangeetha Abdu Jyothi, a computer scientist at the University of California, Irvine, believes that major solar storms are capable of compromising the internet's global infrastructure, and probably will. It's not that a coronal mass ejection can disable the fibre optic cables that form the foundation of the internet. Those cables remain unaffected and local internet service would remain intact. But, the researcher said, the global network of undersea power supply cables that boost the internet's international signals, the equivalent of repeaters, would suffer directly from electromagnetic fluctuations brought on by severe solar eruptions. In a recently released research paper, the professor speculated that this could knock nations off the internet, isolating them for as long as several weeks. The professor presented her findings in a paper in late August at a conference held virtually by the Association for Computer Machinery. She noted that astrophysicists say there is a likelihood of between 1.6 percent and 12 percent that a strong enough storm of this sort will occur within the next decade. For many, her findings describe a future version of the Carrington Event, a geomagnetic storm in September of 1859 that damaged the earth's ozone layer and disrupted telegraph lines around the world.

Electricity From Sweat

A Team at the University of California, San Diego, published a report in the journal 'Energy and Environmental Science' about small biofuel cells that can harvest enough energy from the sweat on a person's fingertips to power wearable medical sensors that track health and nutrition. A biofuel cell that fits into thin pads that are stuck to the fingertips soaks up sweat into a thin layer of foam, where an enzyme oxidises lactate in the sweat to create an electrical charge. The enzymes also replace the precious metals normally used in batteries. Each finger pad can generate 20 to 40 microwatts of power and harvest 300 millijoules of energy per square centimetre during 10 hours of sleep. Enough for lightweight sensors that detect a range of metrics such as heart rate, vitamin deficiencies and glucose levels. Currently, the enzyme that is key to the reaction begins to break down and become ineffective after two weeks. Using a larger flexible patch a few centimetres across stuck to the skin has been used to power a radio for two days at bluetooth power levels, with sensors and the transmitter all contained in the sticky patch.

The Propagation Horoscope

Having predicted moderately quiet solar activity when posting last week's news script, in the early morning of the 28th the sun surprised us with an M 4,6-Flare. The UV radiation caused the Mögel-Dellinger Effect to briefly blot out the HF bands on the day side. Around noon time the effect had already subsided. The 3000 km distance for the MuF2 frequency hovered around 14 to 18 MHz, meaning reliable morning and evening openings on 20,17 and occasionally 15m. There is some midday sporadic E towards the south, but sporadic E is steadily declining as we go into the autumn. Pacific regions were heard on 40m, albeit troubled by the persistent interferences centred around 7135kHz, making half of the voice segment unusable. The active Region 2860 disappeared behind the western limb of the sun yesterday. Unless that active region will dissipate, it may bring some more flares when it reemerges on the eastern limb on the 16th of September. Some remaining plasma clouds are still on route to us, so we can expect an unsettled geomagnetic field with K values between 2 and 5. The flux climbed to 90 and due to the lag of effect on the ionosphere expect good openings on 17 and 15 m. Listen for signals from the south on 40, 30 and 20 m long and short path. Just before or at morning greyline check 160 and 80 m, after around 0430 UTC V31MA can be heard on both bands.

That is the news for this week. Items for inclusion in next week's radio news can be submitted by email to newsteam@irts.ie for automatic forwarding to both the radio and printed news services. The deadline is midnight on Friday.

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